

What is claimed is:

1. A compound comprising:
 - a) a biomolecule; and
 - b) at least one pentopyranosyl nucleic acid
- 5 conjugated through a covalent linkage to the biomolecule; and
wherein the pentopyranosyl nucleic acid has at least
two pentopyranosyl nucleotide subunits, wherein the subunits
of the pentopyranosyl subunits are covalently linked between
carbon 4 and carbon 2 of their respective pentopyranosyl
10 rings, and wherein the pentopyranosyl nucleic acid does not
stably hybridize to naturally occurring DNA or RNA.
2. The compound of claim 2, wherein the compound
further comprises one or more moieties selected from the group
consisting of a detectable labeling moiety and a moiety for
15 attachment to a solid carrier, wherein each moiety is
conjugated to either the biomolecule or the pentopyranosyl
nucleic acid through a covalent linkage.